BULL. BOT. SURV. INDIA
Vol. 17, Nos. 1-4 : pp. 51-54, 1975

A NEW SPECIES, NEW COMBINATIONS AND NOTES ON THE GENUS *PTERNANDRA* JACK (MELASTOMATACEAE)

M. P. Nayar

Botanical Survey of India, Pune

ABSTRACT

The genus *Kibessia* is reduced to synonymy of the genus *Pternandra*. A new species *Pternandra moluccana* Nayar is described and eighteen name transfers are proposed. The new combinations and new names proposed are as follows: *Pternandra hirtella* (Cogn.) Nayar; *P. azurea* (Bl.) Burkill var. *subalata* (Bl.) Nayar; *P. acuminata* (Decne) Nayar; *P. tuberculata* (Korth.) Nayar; *P. grandifolia* (Bakh. f.) Nayar; *P. gracilis* (Cogn.) Nayar; *P. teysmanniana* (Cogn.) Nayar; *P. coriacea* (Cogn.) Nayar; *P. rostrata* (Cogn.) Nayar; *P. tessellata* (Stapf) Nayar ; *P. accuminatissima* (Merr.) Nayar; *P. affinis* (Merr.) Nayar; *P. elmeri* (Merr.) Nayar; *P. ledermannii* (Mansfeld) Nayar; *P. verrucosa* (Merr.) Nayar; *P. borneaensis* Nayar; *P. cogniauxii* Nayar; *P. pachyphylla* (Bakh. f.) Nayar.

In 1822 Jack described the genus *Pternandra* on the basis of *P. coerulescens*. De Candolle (1828) described the genus *Kibessia* on the basis of *K. azurea* (=*Melastoma azurea* Bl.) characterised by the calyptriform calyx tube. Blume (1831) accepted *Kibessia,* but he erected another genus, *Ewyckia,* typified by *E. cyanea,* which was later found to be congeneric with *Pternandra*. Later Blume (1849) proposed two more genera *Rectomitra* and *Macroplacis*. *Rectomitra* was based on *Ewyckia galeata* Korth. and *E. tuberculata* Korth. and *Macroplacis* was proposed on *Ewyckia cordata* Korth. Naudin (1852) accepted the four genera *Kibessia* DC., *Ewyckia* Bl., *Rectomitra* Bl., and *Macroplacis* Bl., and reduced *Pternandra* Jack to *Ewyckia* Bl. Griffith (1854) erected the genus *Apteuxis* based on the species *Apteuxis triplinervis* which was found to be conspecific with *Pternandra coerulescens* Jack.

Miquel (1856) accepted *Ewyckia* Bl., *Macroplacis* Bl. and *Kibessia* DC. and reduced *Pternandra* Jack and *Rectomitra* Bl. to synonymy of *Ewyckia* Bl.

Bentham & Hooker (1865) reinstated the genus *Pternandra* Jack and appropriately reduced *Ewyckia* Bl. to synonymy. Bentham & Hooker also recognised *Kibessia* DC. as a distinct genus and reduced both *Rectomitra* Bl. and *Macroplacis* Bl. to synonymy.

Triana (1871) enumerated the following genera: *Pternandra* Jack, *Kibessia* DC., *Rectomitra* Bl. (*Macroplacis* Bl.). He distinguished the genus *Rectomitra* from *Kibessia* by the calyptriform calyx which ruptures irregularly, whereas in *Kibessia* the limb of the calyx is deciduous.

Cogniaux (1891) recognised *Pternandra* Jack (syn: *Ewyckia* Bl. and *Apteuxis* Griff.) and *Kibessia* DC. He proposed three sections for *Kibessia*: i. *Eukibessia,* ii. *Rectomitra* and iii. *Macroplacis* on the basis of the nature of calyx limb, its method of opening and the nature of the connectives. Krasser (1893) followed Cogniaux in the classification of the *Kibessia-Pternandra* complex.

Baillon (1880), King (1900) and Ridley (1922) combined both *Pternandra* and *Kibessia*. Bakhuizen van den Brink f. (1943) considered that *Pternandra* and *Kibessia* were generically different. But in 1963 Bakhuizen van den Brink f. suggested that

Date of receipt : 3. 10. 75. Date of acceptance : 27. 5. 77

Kibessia was congeneric with *Pternandra*. After studying the specimens it is here considered that *Pternandra* and *Kibessia* can not be maintained as separate genera differing only in the presence or absence of a calyptriform calyx limb. Calyx scales are seen in some species of *Pternandra* and the presence or absence of calyx appendages are not convincing characters on which the two genera can be differentiated.

In the *Pternandra-Kibessia* group, the calyptriform calyx limb shows variations in the nature of its opening. In some species the calyx limb almost encloses the bud and the limb may be either truncate or dentate: i.e. *Pternandra coerulescens* Jack. While in *P. azurea* (Bl.) Burkill and *P. moluccana* Nayar the calyx limb completely encloses the bud and the limb is deciduous. In *P. galeata* (Korth.) Ridl., *P. tuberculata* (Korth.) Nayar, the calyx limb completely encloses the bud, but opens in lobes later on.

As suggested by Baillon (1880), King (1900), Ridley (1922), Burkill (1935) and Bakhuizen van den Brink f. (1963) it is here proposed to consider *Kibessia* as synonym of *Pternandra* Jack.

1. **Pternandra hirtella** (Cogn.) Nayar comb. nov. *Kibessia hirtella* Cogn. in DC. Monogr. Phan. 7: 1107. 1891; Bakh. f. in Recueil Trav. Bot. Neerl. 40: 313. 1946. (Preprint 1943).

Distribution: Endemic to Borneo.

2. **Pternandra azurea** (Bl.) Burkill var. **subalata** (Bl.) Nayar comb. nov. *Kibessia subalata* (Bl.) in Mus. Bot. Lugd.-Bot. 1(1): 8. 1849; Naudin in Ann. Sc. Nat. sér. 3. 18: 262. 1852; Triana in Trans. Linn. Soc. 28: 152. 1871. (Sphalm. *K. subulata*). *Kibessia azurea* (Bl.) DC. var. *subulata* (Bl.) Miq. Fl. Ned. Ind. 1: 570. 1855; Cogniaux in DC. Monogr. Phan. 7: 1106. 1891; Bakh. f. Recueil Trav. Bot. Neerl. 40: 318. 1946 (Preprint 1943).

Distribution: Sumatra.

3. **Pternandra borneaensis** Nayar nom. nov. *Kibessia simplex* Korth. in Temminck. Verhand. Nat. Gesch. Bot. 253. 1844; Naudin in Ann. Sc. Nat. sér. 3. 18: 262. 1852; Triana in Trans. Linn. Soc. 28: (Part I), 152. 1871; Bakh. f. in Recueil Trav. Bot. Neerl. 40: 317. 1946. (Preprint 1943).

Since the specific epithet, *simplex* is already preoccupied in the genus *Pternandra* by *P. simplex* H. Baill., a new name *Pternandra borneaensis* is proposed.

Distribution: Endemic to Borneo.

4. **Pternandra pachyphylla** (Bakh. f.) Nayar comb. nov. *Kibessia pachyphyllum* Bakh. f. in Recueil Trav. Bot. Neerl. 40: 318. 1946 (Preprint 1943).

Distribution: Endemic to Borneo.

5. **Pternandra acuminata** (Decne.) Nayar comb. nov. *Kibessia acuminata* Decne. in Ann. Sci. Nat. sér. 3. 5: 316. 1846; Triana in Trans. Linn. Soc. 28: 153. 1871; Cogniaux in DC., Monogr. Phan. 7: 1108. 1891; Bakh. f. in Recueil Trav. Bot. Neerl. 40: 319. 1946 (Preprint 1943).

Distribution: Borneo, Malaya Peninsula.

6. **Pternandra cogniauxii** Nayar nom. nov. *Ewyckia cordata* Korth. in Temminck, Verhand. Nat. Gesch. Bot. 255. 1844. *Macroplacis cordata* (Korth.) Bl. in Mus. Bot. Lugd.-Bat. 1(1): 7. 1849. *Rectomitra cordata* (Korth.) Triana in Trans. Linn. Soc. 28: 153. 1871. *Kibessia korthalsiana* Cogn. in DC. Monogr. Phan. 7: 1111. 1891; Bakh. f. in Recueil Trav. Bot. Neerl. 40: 319. 1946 (Preprint 1943).

The basionym of this taxon is *Ewyckia cordata* Korth. Since the specific epithet 'cordata' is preoccupied in the genus Kibessia. Cogniaux (*l.c.* 1891) coined the name *Kibessia korthalsiana.* In the new combination under the genus *Pternandra* the specific epithets '*cordata*' and '*korthalsiana*' cannot be used as the above mentioned specific epithets are preoccupied in the genus by *P. cor-*

data (Korth.) Baill. and *P. korthalsiana* (Miq.) Triana. Hence it is proposed to name this taxon *Pternandra cogniauxii* Nayar.

7. Pternandra tuberculata (Korth.) Nayar comb. nov. *Ewyckia tuberculata* Korth. in Temminck, Verhand. Nat. Gesch. Bot. 255. 1844; Miquel, Fl. Ned. Ind. I: 569. 1855. *Rectomitra tuberculata* (Korth.) Bl. in Mus. Bot. Lugd.-Bat. 1(1): 7. 1849; Naudin in Ann. Sci. Nat. sér 3. 18: 260. 1852; Triana in Trans. Linn. Soc. 28: 153. 1871. *Kibessia tuberculata* (Korth.) Hook. f. ex Clarke in Hook. f. Fl. Brit. Ind. 2: 553. 1879; Cogniaux, DC. Monogr. Phan. 7: 1110. 1891; Bakh. f. in Recueil Trav. Bot. Neerl. 40: 322. 1946 (Preprint 1953).

Distribution: Malaya Peninsula and Sumatra.

8. Pternandra grandifolia (Bakh. f.) Nayar comb. et stat. nov. *Kibessia tuberculata* (Korth.) Hook. f. ex Clarke var. *grandifolia* Bakh. f. in Recueil Trav. Bot. Neerl. 40: 322. 1946 (Preprint 1943).

The deltoid anthers and conspicuously large leaves are quite characteristic and hence it is raised to the status of species.

Distribution: Endemic to Borneo.

9. Pternandra gracilis (Cogn.) Nayar comb. nov. *Kibessia gracilis* Cogn. in DC., Monogr. Phan. 7: 1110. 1891.

Distribution: Endemic to Sarawak (Borneo).

10. Pternandra teysmanniana (Cogn.) Nayar comb. nov. *Kibessia teysmanniana* Cogn. in DC., Monogr. Phan. 7: 1109. 1891.

Distribution: Endemic to Borneo.

11. Pternandra coriacea (Cogn.) Nayar comb. nov. *Kibessia coriacea* Cogn. in DC., Monogr. Phan. 7: 1109. 1891.

Distribution: Endemic to Borneo.

12 Pternandra rostrata (Cogn.) Nayar comb. nov. *Kibessia rostrata* Cogn. in DC., Monogr. Phan. 7: 1110. 1891.

Distribution: Endemic to Sarawak (Borneo).

13. Pternandra tessellata (Stapf) Nayar comb. nov. *Kibessia tessellata* Stapf in Trans. Linn. Soc. sér. 2.4: 162. 1894.

Distribution: Borneo.

14. Pternandra acuminatissima (Merr.) Nayar comb. nov. *Kibessia acuminatissima* Merr. in Univ. Calif. Publ. Bot. 15: 228. 1929.

Distribution: Borneo.

15. Pternandra affinis (Merr.) Nayar comb. nov. *Kibessia affinis* Merr. in Univ. Calif. Publ. Bot. 15: 227. 1929.

Distribution: Borneo.

16. Pternandra elmeri (Merr.) Nayar comb. nov. *Kibessia elmeri* Merr. in Univ. Calif. Publ. Bot. 15: 227. 1929.

Distribution: Borneo.

17. Pternandra ledermannii (Mansfeld) Nayar comb. nov. *Kibessia ledermannii* Mansfeld in Engl., Jahrb. 60: 138. 1925.

Distribution: New Guinea.

18. Pternandra verrucosa (Merr.) Nayar comb. nov. *Kibessia verrucosa* Merr. in J. As. Soc. Straits 86: 341. 1922.

Distribution: Borneo.

19. Pternandra moluccana Nayar sp. nov.

Type: Moluccas, Halmahera, *D. R. Pleyte* 253 (Holotype L.)

Arbor 20 m alta. *Rami* teretiusculi, juniores angulati, juniores dense paleaceo-vestiti. *Folia* elliptica vel elliptico-oblonga, 5-14 cm × 4-6 cm, basi obtusa vel cuneata, apice cuneata, margine integra, supra sparse paleacea, subtus dense paleaceo-vestita, 3-5 nervia, venulis supra et subtus distinctis, submembranacea; petiolus 1-1.7 cm longus, dense paleaceo-vestitus. Flores axillares et terminales, dense paleaceo-vestiti, pedunculati; pedunculus 6-10 mm longus, dense paleaceo-vestitus; pedicellus 3.5 mm longus. *Calycis tubus*, subhemisphaericus, 4.5-5.5 mm longus, paleaceo-vestitus; limbus calyptriformis, circumscisse deciduus 7-8 mm longus. *Petala* ovata 4.5-5 mm longa. *Stamina* 8, aequalis, filamentis 1.5-2 mm longis, antheris oblongis, 1.5-2 mm longis, connectivo basi non producto, inappendiculato. *Ovarium* calycis tubo totum adnatum. *Stylus* filiformis 5-6 mm longus, stigma capitata.

Tree, 20 m height. Branches terete, angulate when young, densely scaly. Leaves, elliptic or elliptic-oblong, 5-14 cm×4-6 cm, base obtuse or cuneate, apex cuneate, margin entire, upper surface sparsely hairy, undersurface densely scaly, 3-5-nerved; veins on the upper and lower surface distinct, submembraneous; petiole 1-1.7 cm long, densely hairy. Inflorescence axillary or terminal, densely scaly; peduncle 6-10 mm long, densely scaly; pedicel 3.5-5 mm long. Calyx tube subhemisphaerical, 4.5-5.5 mm long, scaly; limb calyptriform, deciduous, 7-8 mm long. Petals ovate 4.5-5 mm long. Stamens 8, equal, filament 1.5-2 mm long, connective basaly not produced, inappendiculate. Ovary totally adnate to the calyx tube. Style filiform, 5-6 mm long, stigma capitate.

Distribution: Moluccas.

Moluccas: Halmahera, Tasoa Cn Sembilan, alt. 300 m, 25 Sept. 1951, *D. R. Pleyte* 253 (Holotype L.); Morotai, G. Pare, 25 May 1949, *A. Kostermans* 1086 (K.).

P. moluccana is easily distinguishable by the nature of scales present on the branches, leaves and flowers.

ACKNOWLEDGEMENT

I wish to thank Director, Botanical Survey of India for all facilities.

REFERENCES

BAKHUIZEN VAN DEN BRINK JR. R. C. A contribution to the knowledge of the Melastomataceae occurring in the Malay archipelago especially in the Netherlands East Indies. *Recueil Trav. Bot. Neerl.* 40: 1-391. 1946. (Preprint 1943). and *Meded. Bot. Mus. Herb. Rijks Univ.* 91 : 1-391. 1947.*

——In C. A. Backer and R. C. Bakhuizen van den Brink Jr. *Flora of Java* 1 : 370. 1963.

BAILLON, H. E. *Melastomacees, Histoire des Plantes.* 7 : 1-65. 1880.

BENTHAM, G. AND J. D. HOOKER. *Melastomataceae. Gen. Plant.* 1 : 725-772. 1865.

BLUME, C. L. Ueber einige Ostindische und besonders Javanische Melastomaceen. *Bot. Zeit.* 14 : 465-527. 1831.

——Melastomataceae. *Mus. Bot. Lugd. Bat.* 1 : 1-56. 1849.

BURKILL, I. H. Some change in plant names. *Bull. Misc. Inf. Kew* 1935 : 316-319. 1935.

CANDOLLE, A. P. DE. *Prodr. Syst. Nat.* 3 : 99-202. 1828.

COGNIAUX, A. Melastomaceae in A. and C. de Candolle, *Monogr. Phan.* 7 : 1-1256. 1891.

GRIFFITH, W. *Notulae ad Plantas Asiaticas* 4 : 672. 1854.

JACK, W. Descriptions of Malayan Plants. *Malay Misc.* 2(7) : 1-96. 1822.

KING, G. Materials for a flora of the Malayan Peninsula Melastomataceae. *Journ. As. Soc. Beng.* 69 : 1-87. 1900.

KRASSER, F. Melastomataceae in Engler & Prantl, *Nat. Pflanzenfam* 3(7) : 130-199. 1893.

MIQUEL, F. A. W. Melastomataceae. *Fl. Ind. Bat.* 1 : 498-580. 1856.

NAUDIN, C. Melastomacearum. *Ann. Sci. Nat.* III, 17 : 257-294. 1852.

RIDLEY, H. N. Melastomataceae. *Fl. Malay Penin.* 1 : 771-773. 1922.

TRIANA, J. 'Les Melastomacees'. *Trans. Linn. Soc.* 28 : 1-188. 1871.

---

*The unusual wartime circumstances concerning the dates of publication for this work are not widely known. Ten copies preprinted from the Recueil were available and circulated in Utrecht on 17th May 1943. The Recueil was published in December 1946 and the type rerun for the Mededelingin in September 1947. The work is considered to be validly published and effectively distributed in May 1943. (Information kindly supplied by Dr. F. A. Stafleu of Utrecht to Dr. G. E. Wickens at Kew).